

ABSTRACT

The invention relates to a method of manufacturing a pneumatic tire (400) with improved tire uniformity. The tire has a pair of beads (432a,432b) in bead portions and at least one carcass ply (418) extending between the beads and consisting of reinforcement cords (419) embedded in a rubber matrix (836). The method is characterized by the steps of: a) forming the rubber matrix of the carcass ply or a portion of the bead portions from a matrix material (such as a thermoplastic) that can be rendered plastic and rendered non-plastic, which respectively permits and restricts reorientation of the reinforcement cords, b) rendering the matrix material plastic (such as by heating the thermoplastic) before the tire begins to cure to permit the one or more of the reinforcement cords to be free to reorient themselves, and c) curing the tire in a tire mold (354) while the matrix material remains plastic so that the reinforcement cords remain free to reorient themselves while curing.

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